Pennine Lancashire CCGs

Severe Weather Plan

- Including the Flood Plan

(Incorporating Blackburn with Darwen and East Lancashire CCG)

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Target audience:	All El & BwD CCG staff including temporary, agency and contractor staff

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Review and Amend Log

Version No	Date	Section	Description of change
1	07/07/16		New Policy separated from original Emergency Planning and Resilience Policy
2	02/18		Full review based on internal changes and lessons learnt.
3	09/19		Contacts updates

Contents

1. Document Status

This document details the response to national Emergency Planning, Resilience and Response (EPRR) requirements and covers both NHS Blackburn with Darwen Clinical Commissioning Group (CCG) and NHS East Lancashire CCG. Unless clearly documented the term 'CCG' or 'CCGs' within this plan should be taken to refer to both Blackburn with Darwen and East Lancashire. Any specific detail relevant to only one of the CCGs will be clearly documented.

2. Introduction and Background

This local plan is based on the arrangements in place to manage periods of severe weather. This plan is therefore initially split into 'Heatwave' and 'Cold Weather' arrangements and the overall information cascade arrangements. In addition to this a specific 'flood plan' has been developed and included at Annex A. It has been developed in line with the 'LRF Severe Weather Plan 2016' and should be read in conjunction with the Pennine Lancashire CCG's Emergency Planning and Resilience Policy and associated plans.

3. Purpose / Aims and Objectives

The aim of this plan is to detail the role of the CCGs in a severe weather situation along with clarifying the arrangements of providers.

The objectives of the plan are to:

- Describe the risks that a severe weather situation would present to East Lancashire & Blackburn with Darwen and to protect staff, patients and clients against the adverse health consequences as far as possible.
- Describe the communication system that will alert the Pennine Lancashire health community to a forecasted period of severe weather.
- Identify the roles and responsibilities of the CCGs involved in the local response to a heatwave.
- Identify the actions to be undertaken by the CCGs before and during a heatwave to support the provision of care for vulnerable people.
- Ensure commissioned providers are able, and have plans to organise and adapt services to continue to provide care and treatment for people suffering from the impact of excess heat, whilst maintaining other essential care.
- Promote a return to normality at the earliest opportunity.

4. Roles and Responsibilities

The CCG is required to:

- Ensure that all CCG employed staff familiarise themselves with the Severe Weather plan.
- Support Public Health and health economy partners in identifying individuals who are at particular risk. These people are likely to be already receiving care.
- Review surge capacity and the need for, and availability of, staff support in the event of a period of Severe Weather, especially if it lasts for more than a few days.
- Ensure cascade process is in operation.
- Ensure commissioned services have necessary plans in place.

5. The Policy

a. Heatwave

5.1.1 Heatwave - Introduction

This section of the plan is based on the 'Heatwave: Plan for England – Protecting Health and Reducing Harm from Severe Heat from Heatwaves' and supporting guidance issued by Public Health England (PHE) and NHS England.

The climate is changing and current analysis in the first national climate change Risk assessment (UK CCRA 2012) suggests that summers are going to get hotter in the future so long term planning is essential to support:-

- More co-ordinated long term planning between agencies to protect people and infrastructure from the effects of severe hot weather and thus reduce excess summer illness and death. This is a role of health and well-being boards.
- Long term multi-agency planning to adapt to and reduce the impact of climate change including 'greening the building environment' to increase energy efficiency.

For the purpose of this plan the term 'heatwave' is defined as

Extreme heat when temperatures remain abnormally high over more than a couple of days. This is linked with the 'Heat Health Watch' system operating from 1 June to 15 September, based on Met Office forecasts which work on threshold temperatures for the North West of 30°C for the day and Night 15°C.

It is acknowledged that not all heatwaves will be declared as 'Major Incidents', and will not necessarily invoke a full multi-agency response. However, the principles of management will be generic.

The importance of joint working cannot be overemphasised. The initial response must be to contain and manage the incident while maintaining essential services, and nothing should interfere with or inhibit these actions.

5.1.2 Background - Heatwave

Excess deaths
It has been proved that periods of prolonged excessive heat bring about excess deaths. The Office for National Statistics reported a 4% increase over baseline mortality (680 excess deaths) in England and Wales between 16 July and 28 July 2006 when compared with the average for the same period from 2001 to 2005. In 2009 there were approximately 300 excess summer deaths following the 2009 heatwave and the majority of deaths occurred in over 75 year olds.

Excess deaths are not just deaths of those who would have died anyway over the next few weeks or months due to illness or old age. There is strong evidence that these summer deaths are 'extra' and are the result of heat-related conditions.

Even during relatively mild heatwaves, excess deaths are significantly, but avoidably higher in this country. Timely preventive measures can reduce these excess rates. In contrast to deaths associated with cold snaps in the winter, the rise in mortality as a result of very warm weather follows very sharply – within one or two days of the temperature rising. This means that by the time a heatwave starts, the window of opportunity for effective action is very short indeed and therefore preparedness is of the essence.

However, the main causes of illness and death during a heatwave are respiratory and cardiovascular diseases. A linear relationship between temperature and weekly mortality was observed in England in summer 2006, with an estimated 75 extra deaths per week for each degree of increase in temperature. Part of this rise in mortality may be attributable to air pollution, which makes respiratory symptoms worse. The other main contributor is the effect of heat on the cardiovascular system. In order to keep cool, large quantities of extra blood are circulated to the skin. This causes strain on the heart, which for elderly people and those with chronic health problems can be enough to precipitate a cardiac event for example, heart failure. Additionally, death rates increase in particular for those with renal disease. A peak in homicide and suicide rates during previous heatwaves in the UK has also been observed.

5.1.3 Potential Impacts for the Health Sector - Heatwave

i. Planning - Heatwave
Building on the past evaluation of the Heatwave Plan, the recent Health Effects of Climate Change in the UK 2012 and UK Climate Change Risk Assessment reports, and the National Adaptation Programme, an emerging agenda for health and social care might be:

ii. Short term (0–5 years)
- Embed the work of heatwave and cold weather planning (excess seasonal deaths) into the new health and social care structures following the passage of the Health and Social Care Act 2012. Multi-agency Local Resilience Forums

will have a critical role in the preparations and response to a heatwave, with Health & Wellbeing Boards leading longer term strategic planning to reduce the impact of climate change & ensuring maximum adaptation to reduce harm from heatwaves.

- Joint Strategic Needs Assessments (JSNAs) can be used to identify the challenges posed by excess seasonal summer and winter deaths locally, and Joint Health and Wellbeing Strategies (JHWSs) can be used to agree actions to reduce them. These processes, should in turn inform commissioning priorities across the local health and social care system.

- Making progress against several Public Health Outcomes Framework indicators can reduce harm to health from severe heat and heatwaves. For example, provision of green space for exercise/health reasons (indicator 1.16) can reduce urban heat. Improving social connectedness (1.18) may mean more people are able to access the help they need to protect themselves from severe heat. Addressing air pollution from particulate matter (3.1) and encouraging physical activity (2.13) e.g. walking and cycling will improve air quality (which may worsen during periods of increased temperatures). Lastly, respiratory and cardiovascular diseases are the main causes of illness and death during a heatwave; taking steps to reduce the harm from heat will contribute to improving mortality rates from cardiovascular (4.4) and respiratory diseases (4.7).

- Continue to work in partnership with local authorities and social care services to identify vulnerable populations and geographical areas to target long-term planning and interventions during a heatwave as per the Heatwave Plan.

- High temperatures during a heatwave may require affected wards to move patients to cooler areas; extra beds may need to be made available in hospitals due to increased demand.

- Laboratories, pharmaceutical storage and food storage areas in hospitals may be adversely affected by increasing temperatures during heatwaves. Most pharmaceutical products are heat sensitive and start to degrade if stored at higher than room temperature (usually 25ºC). Higher temperatures also increase the risk of food poisoning occurring.

- IT server overheating and disruption to email communication may occur in hospitals and other NHS organisations and providers of NHS commissioned care during heatwaves – incidents have already been reported.

- Encourage transport plans that maximise active and public transport for staff and patients to lower heat generated by motor vehicle use and car parks.

As the UK CCRA 2012 Health Sector Report noted: To be effective, climate change needs to be factored into:

- design, construction and maintenance of healthcare infrastructure;
- allocation of resources;
- procurement processes;
- training programmes;
- business continuity.

iii. Medium term (10–30 years)

- Focus on building design of hospitals and other healthcare establishments to aid passive cooling where possible, and target vulnerable areas (patients, medications, IT) with air-conditioning.
- Review external hospital and health care land for ways to aid cooling – for example, consider constructing underground car parks and maximise green space and trees surrounding buildings.
- Transport planning – to encourage active transport and public transport and use of low-emission vehicles for NHS business.
- Partnership work with local authorities to identify and focus on vulnerable urban areas and populations – for example, certain urban areas may be affected more by high temperatures.
- Monitoring of, and the implications of, new diseases arising due to warmer summer (e.g. new insect borne diseases not previously endemic in the UK).

iv. Long term (30+ years)

- Planning of new hospitals and health care facilities– ensure maximum green space and water (e.g. lakes) surrounding buildings to aid passive cooling, and avoid building on flood plains.
- Building 'zero carbon' hospitals and minimising energy use in the NHS.
- Development of temperature-resistant drugs and laboratory materials.

v. Impact on Health – Heatwave

Heat-related illnesses

The main causes of illness and death during a heatwave are Respiratory and Cardiovascular diseases. Additionally, there are specific heat-related illnesses including:

- heat cramps – caused by dehydration and loss of electrolytes, often following exercise;
- heat rash – small, red, itchy papules;
- heat oedema – mainly in the ankles, due to vasodilation and retention of fluid;
- heat syncope – dizziness and fainting, due to dehydration, vasodilation, cardiovascular disease and certain medications;

- sunburn – with severe sunburn potentially causing blistering, swelling of the skin or fever;

- heat exhaustion (more common) - occurs as a result of water or sodium depletion, with non-specific features of malaise, vomiting and circulatory collapse, and is present when the core temperature is between 37ºC and 40ºC. Left untreated, heat exhaustion may evolve into heatstroke; and

- heatstroke – can become a point of no return whereby the body's thermoregulation mechanism fails. This leads to a medical emergency, with symptoms of confusion; disorientation; convulsions; unconsciousness; hot dry skin; and core body temperature exceeding 40ºC for between 45 minutes and eight hours. It can result in cell death, organ failure, brain damage or death. Heatstroke can be either classical or exertional (e.g. in athletes).

vi. Vulnerable People – At Risk Groups – Heatwave

There are certain factors that increase an individual's risk during a heatwave. These include:

- **older age**: especially over 75 years old, or those living on their own who are socially isolated, or in a care home;

- **chronic and severe illness**: including heart conditions, diabetes, respiratory or renal insufficiency, Parkinson's disease or severe mental illness. Medications that potentially affect renal function, the body's ability to sweat, thermoregulation (e.g. psychiatric medications) or electrolyte balance (diuretics) can make this group more vulnerable to the effects of heat;

- **infants** are vulnerable to heat due to immature thermoregulation, smaller body mass and blood volume, high dependency level, dehydration risk in case of diarrhoea;

- **homeless people** (those who sleep in shelters as well as outdoors) may be at increased risk from heatwaves. Higher rates of chronic disease (often poorly controlled), smoking, respiratory conditions, substance dependencies and mental illness are more frequent homeless populations than in the general population. These risk factors increase the risks of heat related morbidity and mortality, on top of social isolation, lack of air conditioning, cognitive impairment, living alone and being exposed to urban heat islands;

- **people with alcohol dependence and drug dependence** often have poorer overall health and increased social isolation which can increase their risk of heat stress;

- **inability to adapt behaviour** to keep cool such as having Alzheimer's, a disability, being bed bound, drug and alcohol dependencies, babies and the very young; and

- **environmental factors and overexposure**: living in urban areas and south-facing top-floor flats, being homeless, activities or jobs that are in hot places or outdoors and include high levels of physical exertion, children and adults taking part in organised sports (particularly children and adolescents).

In a moderate heatwave, it is mainly the high-risk groups mentioned above who are affected. However, during an extreme heatwave such as the one affecting France in 2003, fit and healthy people can also be affected.

vii. Other Consequences – Heatwave

In addition to the health consequences, a prolonged period of excessive heat may create other problems which will impact on the community and the workload of the other Health organisations and partners.

- Excessive heat can result in damage to the transport infrastructure through tarmac melting on roads and rail lines etc. buckling.

- Forest and heath fires are more likely and there is the consequent risk to people, property, wildlife and the environment

- Heatwave is often associated with drought, which as well as affecting rivers and streams can also result in failed crops and animal suffering, with the attendant economic consequences.

- Financial implications could stretch to other businesses such as fisheries or the leisure industry.

- Drought may require the introduction of water conservation measures such as bans on hosepipes and sprinkler systems, bans on watering parks and window cleaning and restrictions on abstraction of water for agriculture.

- In the last resort, rota cuts to water supplies, or the use of standpipes or water tankers would impose even greater demands on Pennine Lancashire.

- Prolonged drought can also result in subsidence. In 1976, thousands of claims totalling £60 million poured into insurers.

- Hot weather may be a trigger for changes in behaviour which result in more complaints about excessive noise, public disorder etc.

viii. Impact on the Workforce – Heatwave

Both CCGs need to be aware of the potential impact on the workforce and the potential for business continuity to be compromised. As well as those employees who may be affected by the heat, there is an increased likelihood of children or elderly relatives requiring additional care during prolonged periods of excessive heat. Consideration will need to be given to working practices or work places that need to be adapted to minimise the impact of the heatwave.

6. Cold Weather

a. Introduction – Cold Weather

This section of the plan is based on the Cold Weather Plan for England which has been developed by Public Health England and NHS England.

6.2 Background – Cold Weather

Excess deaths

On average, there are around 25,000 excess winter deaths each year in England. Excess winter deaths are the observed total number of deaths in winter (December to March) compared to the average of the number of deaths over the rest of the year. Excess deaths are not just deaths of those who would have died anyway in the next few weeks or months due to illness or old age. There is strong evidence that some of these winter deaths are indeed 'extra' and are related to cold temperatures and living in cold homes as well as infectious diseases such as influenza. In the recent past, the rate of winter deaths in England was twice the rate observed in some northern European countries, such as Finland. Even with climate change, cold related deaths will continue to represent the biggest weather-related cause of mortality.

Although there are several factors contributing to winter illness and death, in many cases simple preventative action could avoid many of the deaths, illnesses and injuries associated with the cold. Many of these measures need to be planned and undertaken in advance of cold weather.

6.3 Potential Impacts for the Health Sector – Cold Weather

6.3.1 Impact on Health – Cold Weather

The impact of cold weather on health is predictable and mostly preventable. Direct effects of winter weather include an increase in incidence of:

- heart attack
- stroke
- respiratory disease
- influenza
- falls and injuries
- hypothermia

Indirect effects of cold include mental health illnesses such as depression, and carbon monoxide poisoning from poorly maintained or poorly ventilated boilers, cooking and heating appliances and heating.

6.3.2 Vulnerable People – At Risk Groups – Cold Weather

For the purposes of this plan, key groups considered to be particularly at-risk in the event of severe cold weather are summarised in Figure 1.

Figure 1: Groups at greater risk of harm from cold weather

- older people (in particular those over 75 years old, otherwise frail, and or socially isolated)
- people with pre-existing chronic medical conditions such as heart disease, stroke or TIA, asthma, chronic obstructive pulmonary disease or diabetes
- people with mental ill-health that reduces individual's ability to self-care (including dementia)
- pregnant women (in view of potential impact of cold on foetus)
- children under the age of five
- people with learning difficulties
- people assessed as being at risk of, or having had, recurrent falls
- people who are housebound or otherwise low mobility
- people living in deprived circumstances
- people living in houses with mould
- people who are fuel poor
- homeless or people sleeping rough
- other marginalised or socially isolated individuals or groups

7. Alerts: Met Office Alert System

There are two Met Office Alerts: Heat Health Watch and a Cold Weather Alert.

7.1 Heat Health Watch

A 'Heat Health Watch' system operates in England form 1 June to 15 September each year. During this period, the Met Office may forecast severe heatwaves, as defined by day and night time temperatures and duration. See appendix 1 for the National alert cascade flowchart.

While 'Heat Health Watch' is in operation, PHE will routinely monitor outputs from real-time syndromic surveillance systems including calls to NHS 111, GP in hours and out of hours consultations and emergency department attendances (on a daily basis, week days only), for the impact of heat-related morbidity using a range of syndromic health indicators. Information on heat-related illness will be included in routine weekly surveillance reports published on the PHE website; these will provide a source of intelligence on how severe the effects are and how well services are responding.

Weekly bulletins are sent by the Met Office by e-mail to a wide range of recipients.

The 'Heat Health Watch' system comprises of four levels of response. It is based on threshold day and night time temperatures as defined by the Met Office. These vary from region to region. The thresholds for North West are: **Day 30°C Night 15°C**

Minimum temperatures relate to night time temperatures. There are indications that night time temperatures may be more important for impacts upon health then maximum day time temperatures.

Heat watch alerts which may impact on services are distributed, as and when required, to the Executive Team, local Care Homes and providers of acute, community and mental health trusts as described in the CCG heatwave alert cascade process in appendix 2.

7.2 Cold Weather Alert

A Cold Weather Alert Service was established in 2011 in collaboration with DH and the Met Office. It operates in England from 1 November to 31 March. During this period, the Met Office may forecast severe cold weather, as defined by forecasts of mean temperatures of 2°C or less for at least 48 hours, and/or snow and ice.

Cold Weather Alerts – definitions Cold Weather Alert An alert will be issued for 'cold' temperatures if there is a high likelihood (60% or more) that the mean temperature is expected to be at or below 2C for a period of 48 hours in one or more regions in the next five days. A level 2 will be issued when these conditions are forecast and a level 3 when they are occurring.

An alert for snow and ice will be issued when there is a high likelihood (60% or more) that there will be snow or widespread ice affecting one or more regions in the next five days, A level 2 will be issued when this weather is forecast and a level 3 when the snow and ice is occurring.

Heavy snow – Snow that is expected to fall for at least two hours. Geographic extent is not considered, and sometimes the event can be quite localised, but the Met Office will always try to indicate which area will be affected in the alert.

Widespread ice – Ice forms when rain falls on surfaces at or below zero; or already wet surfaces fall to or below zero. The ice is usually clear and difficult to distinguish from a wet surface. It usually forms in sheets. Warnings are issued when any depth of ice is expected over a widespread area. Warnings will also be issued after a snowfall when compacted snow is expected to cause an ice risk.

The term "widespread" indicates that icy surfaces will be found extensively over the area defined by the Met Office in the alert.

The Met Office issues these alerts down to a county level, so either of the warnings above could be issued even if only one county is likely to be affected.

8. Command and Control

Regional Response
Incidents of severe weather are one of the emergencies where it is possible that regional arrangements would be put in place in response to widespread simultaneous impact. This will be guided by the LRF Severe Weather Plan.

Local Response
The Met Office has been directed to issue 'Heat Health Watch' and 'Cold Weather Alert' reports to a list of key contacts within both CCGs as detailed in the appendix.. These individuals are required to monitor the reports and take any action in regards to cascade / escalation.

Response to **'Heat Health Watch'** reports at differing levels are detailed below:-

8.1 Level 1 – Heatwave and Summer Preparedness Programme

- Work with partner agencies, providers and businesses to coordinate heatwave plans, ensuring vulnerable and marginalised groups are appropriately supported
- Work with partners and staff on risk reduction awareness
- Ensure care homes and hospitals are aware of the heatwave plan and are engaged in preparing for heatwaves
- Continue to engage the Community & Voluntary Sector to support communities to help those most at risk

8.2 Level 2 – Heatwave is Forecast – Alert and Readiness

- Provide any requested support to:-
  - Communicate public media messages – especially to 'hard to reach' vulnerable groups
- Communicate alerts to staff and make sure that they are aware of heatwave plans
- Implement Business Continuity
- Seek assurance that organisations have implemented their own plans and disseminated information / advice

8.3 Level 3 - Heatwave Action

- Media alerts about keeping cool – via CCG website
- Support organisations to reduce unnecessary travel

8.4 Level 4 – Major Incident – Emergency Response

NATIONAL EMERGENCY

Continue actions as per Level 3 unless advised to the contrary.

Central government will declare a Level 4 alert in the event of severe or prolonged heatwave affecting sectors other than health and if requiring coordinated multi-agency.

NHS England will manage the health service response to the incident under normal arrangements.

Response to **'Cold Weather Alert'** reports at differing levels are detailed below:-

8.5 Level 1 – Winter Preparedness and Action

- Communicate public health media messages.
- Consider the revisions to the CWP and ensure that the changes are understood across the system. Work with partner agencies to co-ordinate locally appropriate cold weather plans.
- Ensure key partners, including all managers of care, residential and nursing homes are aware of the alert system and can access advice.
- Review the distribution of the alerts across the system and ensure staff are aware of winter plans and advice.
- Ensure that local organisations and professionals are taking appropriate actions in light of the cold weather alerts in accordance with local and national CWP.
- Ensure that organisations and staff are prompted to signpost vulnerable clients onwards (e.g. for energy efficiency measures, benefits or related advice).
- Liaise with providers of emergency shelter for homeless people to agree plans for severe weather and ensure capacity to scale up provision.
- Support communities to help those at risk. Support the development of community emergency plans.
- Identify which local health, social care and voluntary and community sector organisations are most vulnerable to the effects of winter weather. Agree plans for winter surge in demand for services. Make sure emergency contacts are up to date.

8.6 Level 2 – Severe Winter Weather is Forecast – Alert and Readiness

- Continue to communicate public health messages.
- Communicate alerts to staff and make sure that they can take appropriate actions.
- Ensure partners, including all managers of care, residential & nursing homes are aware of the alerts and can access advice.
- Support local VCS organisations to activate community emergency plans.
- Activate business continuity arrangements and emergency plans as required.
- Consider how to make best use of available capacity, for example by using community beds for at risk patients who do not need an acute bed and enabling access to step-down care and enablement.
- Work with partner agencies (e.g. transport) to ensure road/ pavement gritting preparations are in place to allow access to critical services and pedestrian hotspots.

8.7 Level 3 – Severe Weather Action

- Continue to communicate public health messages.
- Communicate alerts to staff and make sure that winter plans are in operation.
- Ensure key partners are undertaking action in response to alerts.
- Support local voluntary and community sector organisations to mobilise community emergency plans.
- Ensure continuity arrangements are working with provider organisations.
- Work with partner agencies (e.g. transport) to ensure road/ pavement gritting arrangements are in effect to allow access to critical services and pedestrian hotspots.

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8.8 Level 4 – Major Incident – Emergency Response

NATIONAL EMERGENCY

Response likely to involve:

- national government departments
- executive agencies
- public sector, including health sector
- voluntary and community sector

All level 3 responsibilities must be maintained during a level 4 incident

Implementation of national emergency response arrangements by central government

9. Communications and the Media

Any incident which may affect the health of the population will attract intense media interest. As with any major incident, it is important that the public are accurately and regularly warned and informed of risks and what they can do to minimise them. In particular, the public will need information on how to manage with the severe weather and be asked to look out for vulnerable members of the community. Appropriate information will be provided to the press as required in line with national processes.

Communications will be issued to staff via team briefs and usual cascade mechanisms. Information for the public will be placed on CCG websites, via social media and also standard communication channels.

10. Business Continuity

It is possible that severe weather may result in higher than usual levels of staff absenteeism for example because of illness of dependents or inability to attend their place of work. Combined with holidays, maintaining essential services to the community may be a challenge. This will be especially true in organisations, or parts of organisations, where severe weather is likely to cause an increased workload. Business Continuity plans need to be activated as required.

11. Health and Safety

In severe weather period employers still have a duty to provide a safe place of work for their workers (Health and Safety at Work Act 1974 as amended), safe working systems and to implement protective measures based on local risk assessments. The risk assessment should consider whether premises are acceptable during periods of severe weather and whether an employee's work activity increases the risk of exposure to excessive heat/cold and what proportionate protection measures may be available.

12. Mutual Aid

Mutual aid arrangements already exist between organisations within the region. For example between emergency services, local authorities and to some extent, health organisations. Normal arrangements will apply in severe weather emergencies.

13. Community Engagement

It is recognised that in periods of severe weather where potentially a large proportion of the community will be affected, the co-operation and support of the public is essential. People will be asked to take steps to protect and help themselves and others, to look out for friends and relatives and to help the authorities to reach the vulnerable within the community.

14. Managing Excess Deaths

It is unlikely that the number of excess deaths resulting from severe weather will necessitate special action. However plans are in place across the County for such an eventuality. A key aim for planning and the response will be to minimise funeral delays and to treat those who have died with dignity and their families with consideration and respect.

15. Data Capture and Reporting

In an escalating emergency data capture and reporting will be a major task. As well as information needed at the local level to facilitate prioritising and deployment of resources, information will be required at regional and national levels including:

- Impact on coroners and funeral services
- Impact on the emergency services
- Impact on health services
- Impact on critical infrastructure
- Local pressure points

Reporting Channels will be established during the incident for all organisations and will be co-ordinated via NHS England with little input expected from the CCG.

16. Record Keeping

The importance of maintaining clear, concise and accurate records cannot be overstated. The records should include:

- The range of options examined.
- The reasons for the chosen option.
- The reasons for rejecting other options.

17. Recovery

NHS England will provide guidance to the CCGs for the decision to “stand down” from emergency procedures which relate to severe weather.

Following stand down NHS England will continue to monitor the impact of severe weather and arrange 'hot' and structured debriefing sessions and support for staff involved in or affected by the severe weather.

18 Equality Impact Assessment

Because there have now been a significant number of judicial review (process under which unlawful action is subject to review by the courts) cases concerning equality duties, it is possible to identify some general principles which the courts will apply when they are considering a case of this nature. However, the courts have the authority to develop or modify these principles as new cases come before them.
From the cases to date, it is clear that the equality duties are taken very seriously by the Courts. They stress:

- the need to consider equality issues thoroughly in the context of the duties before any significant individual decisions are made or any policy is introduced or subject to significant change
- equality impact assessments may provide important evidence as to whether the public authority has complied with its duties.
- that a public authority should refer to Equality Act guidance and codes of practice explicitly and keep records of its decision making. If it departs from the code or guidance, there must be clear reasons to do so.
- if another organisation or person is carrying out a function under guidance by the public authority, the responsibility for ensuring that the general duties are met remains with the public authority
- the duties apply not just to decision-makers but also to those who implement them

The Equality Analysis Checklist initial screening was used to determine the potential impact this policy might have with respect to the individual protected characteristics. The results from this initial screening indicate that this policy will not require a full Equality Analysis Assessment as there is no significant or disproportionate impact against any protected characteristic or at risk group.

19 Implementation and Dissemination

It will be arranged for all ratified policies to be added to the CCG Website and staff will be notified of all policy activity through the CCG's internal email communication system.

The CCG website will be the only point of access for up to date, version controlled CCG Policies.

20 Training Requirements

A major incident places extreme stress on the organisation and may pitch individuals into unfamiliar roles and sometimes into an unusual and possibly dangerous environment.

The Accountable Emergency Officer will ensure that testing of the plan takes place in line with wider EPRR training/testing.

21 Monitoring and Review Arrangements

This plan will be reviewed:

- Following any incident when the plan has been activated.
  Following any major change to the operating arrangements of any of the participating NHS and social care organisations.
- Following issue of new national guidance from Public Health England or NHS England.

22 Consultation

List of Stakeholders Consulted

Date Sent	Name of Individual or Group	Designation	Were comments received, considered and incorporated Yes/no	If not incorporated record reason why
	Iain Fletcher	Head of Corporate Business (BwD)		
	Pennine Lancashire Quality Committee			

23 References and Bibliography

- Heatwave: Plan for England – Protecting Health and Reducing Harm from Severe Heat from Heatwaves
- The 'LRF Severe Weather Plan 2014'
- The Cold Weather Plan for England – Protecting Health and reducing Harm from Cold Weather

- Pennine Lancashire CCGs Emergency Planning and Resilience Policy
- The Health Effects of Climate Change in the UK 2008 (http://webarchive.nationalarchives.gov.uk/20130107105354/http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_080702)
- Health and Safety at Work Act 1974
- Business Continuity policy
- **Public Health England Department**
- https://www.gov.uk/government/organisations/public-health-england
- **NHS England**
- http://www.england.nhs.uk/
- **Met Office**
- www.metoffice.gov.uk/weather/uk/heathealth/index.html
- **Lancashire Local Resilience Forum**
- http://www.lancsresilience.org.uk/

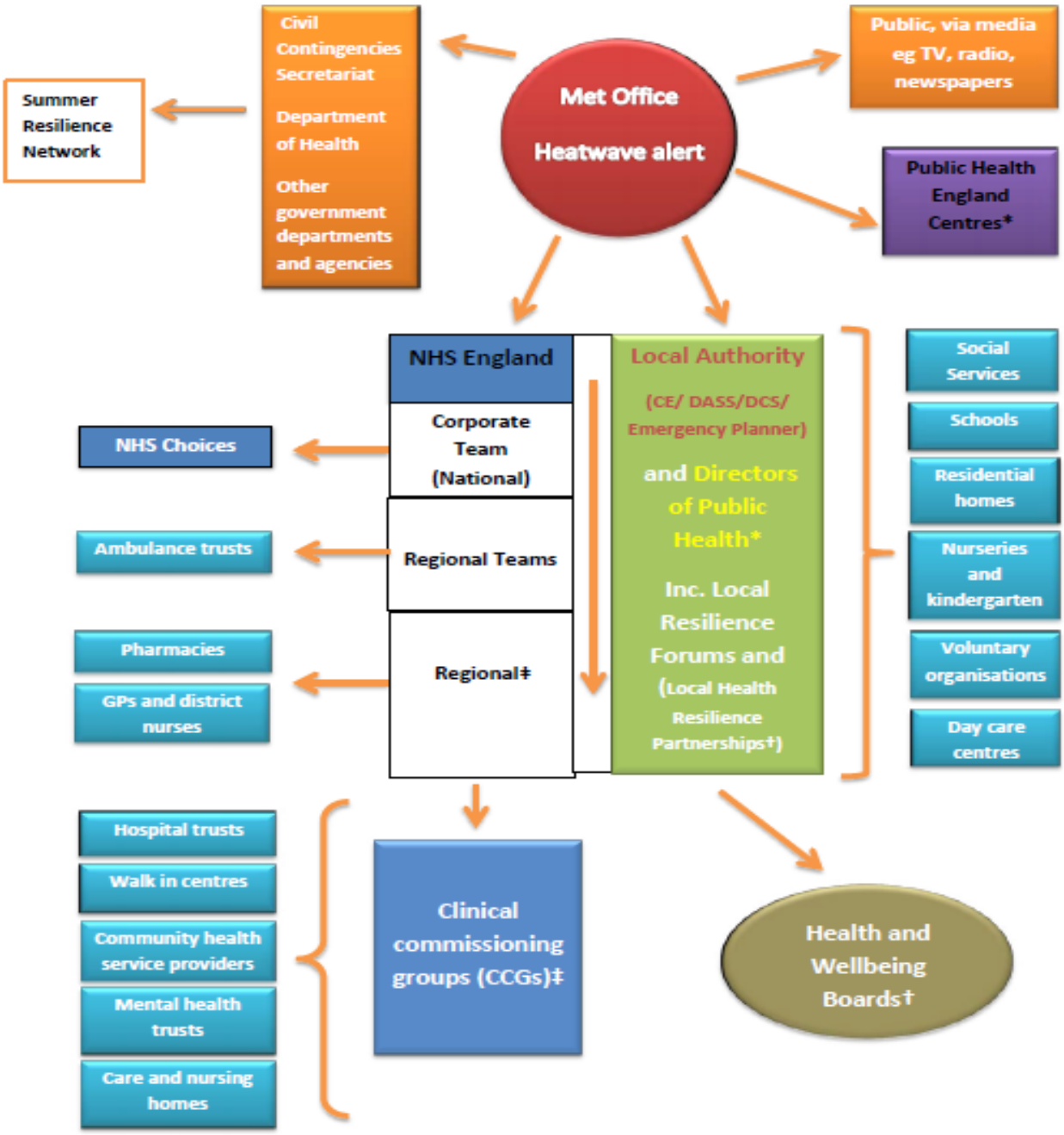
24 Associated Documents

- Pandemic Influenza Plan
- Major Incident Plan
- Business Continuity Management Plan
- Emergency Planning and Resilience Policy
- Operational Response Plan
- Senior Manager On-Call pack

25 Appendices

APPENDIX 1 – National 'Typical Cascade of Severe Weather Alerts' Flowchart (including Heat Health Watch and Cold Weather Alerts)
APPENDIX 2 – East Lancashire CCG Severe Weather Alert Cascade Overview
APPENDIX 3 – Met Office Alert Process (Heatwave or Cold Weather)
APPENDIX 4 – Information and Signposting
ANNEX A – Flood Plan

Appendix 1 – National 'Typical Cascade of Severe Weather Alerts' Flowchart (including Heat Health Watch and Cold Weather Alerts)



Notes

‡NHS England Regional and CCGs should work collaboratively to ensure that between them they have a cascade mechanism for heatwave alerts to all providers of NHS commissioned care both in business as usual hours and the out of hours period in their area.

*PHE Centres would be expected to liaise with Directors of Public Health to offer support, but formal alerting would be expected through usual local authority channels.

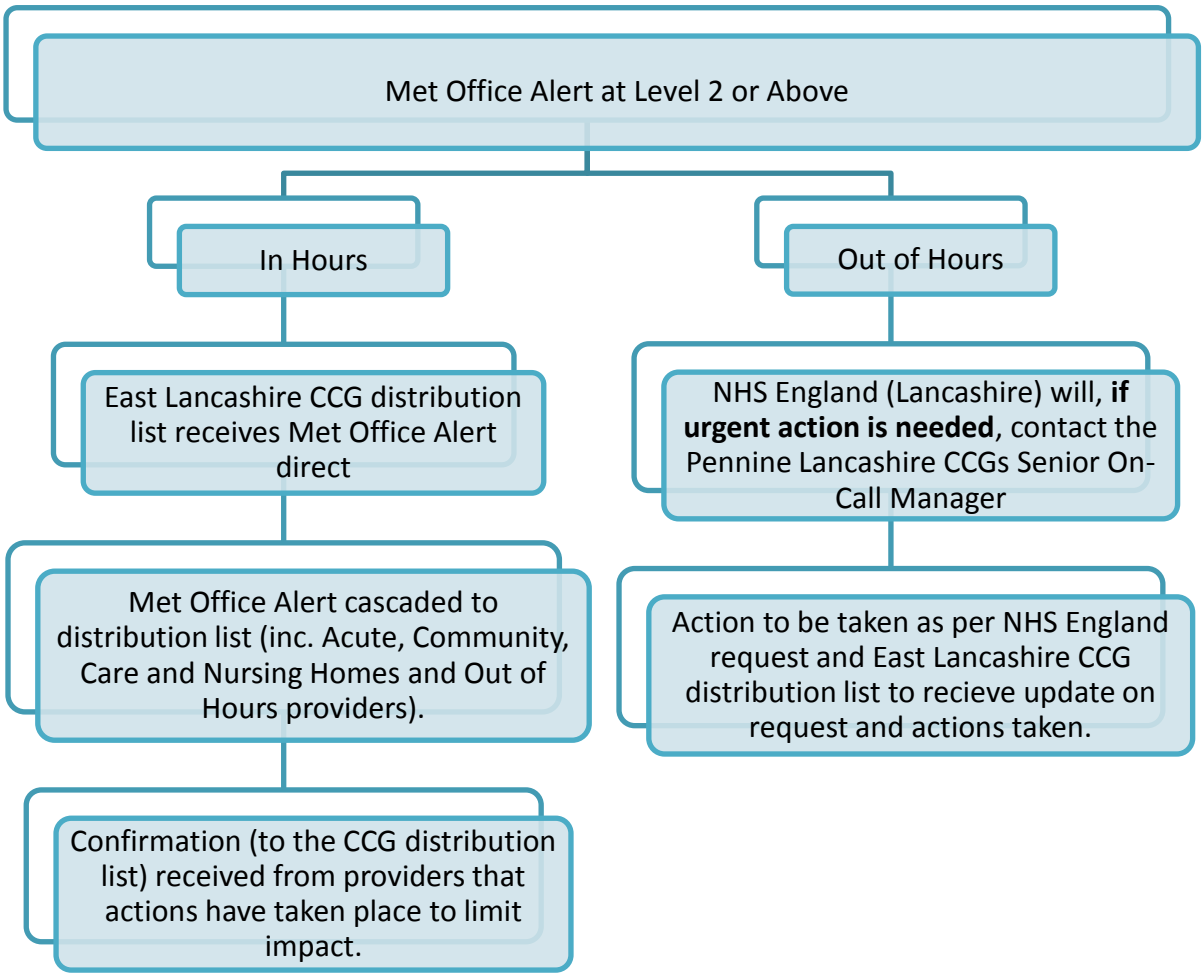
†LHRPs and HWBs are strategic and planning bodies, but may wish to be included in local alert cascades.

Appendix 2 – East Lancashire CCG Severe Weather Alert Cascade Overview

The CCGs are responsible for cascading Met Office Alerts (whether Heat Health Watch or Cold Weather) to a number of CCG commissioned services and health economy partners. This cascade process would be activated at level 2 and, until that point, any alerts issued will only be used internally for surveillance purposes.

In the event of a forecasted / declared severe weather episode the CCGs will notify East Lancashire Hospitals Trust, Lancashire Care Foundation Trust, East Lancashire Medical Services, PDS Medical and Care and Nursing Homes. The process for both the in and out of hours period is as detailed below. Each member of the CCG who receives the Met Office Alerts will have access to a distribution list and pre-prepared emails for dissemination.

It is worth noting that a key requirement for health economy organisations is to not only receive the alerts disseminated via the CCGs but is to provide assurance that actions have been taken/are being taken to reduce the impact of severe weather on their patient groups, particularly those more vulnerable.



NB. 'CCG distribution list' is Chief Finance Officer, the Assurance and Delivery Manager and the Urgent Care Administrator for East Lancashire and the Head of Corporate Business and the Governance, Assurance and Delivery Manager for Blackburn with Darwen.

Appendix 3 – Met Office Alert Process (Heatwave or Cold Weather)

Process

The Alerts are received by those detailed in Appendix 2. Action will be taken to disseminate the alerts to all providers via the Assurance and Delivery Manager from NHS East Lancashire CCG. Only when they are out of the office would the need arise for others to enact this process. For clarity the met office alerts are sent out with sufficient notice that it is unlikely that the need to cascade such alerts outside of normal office hours would arise.

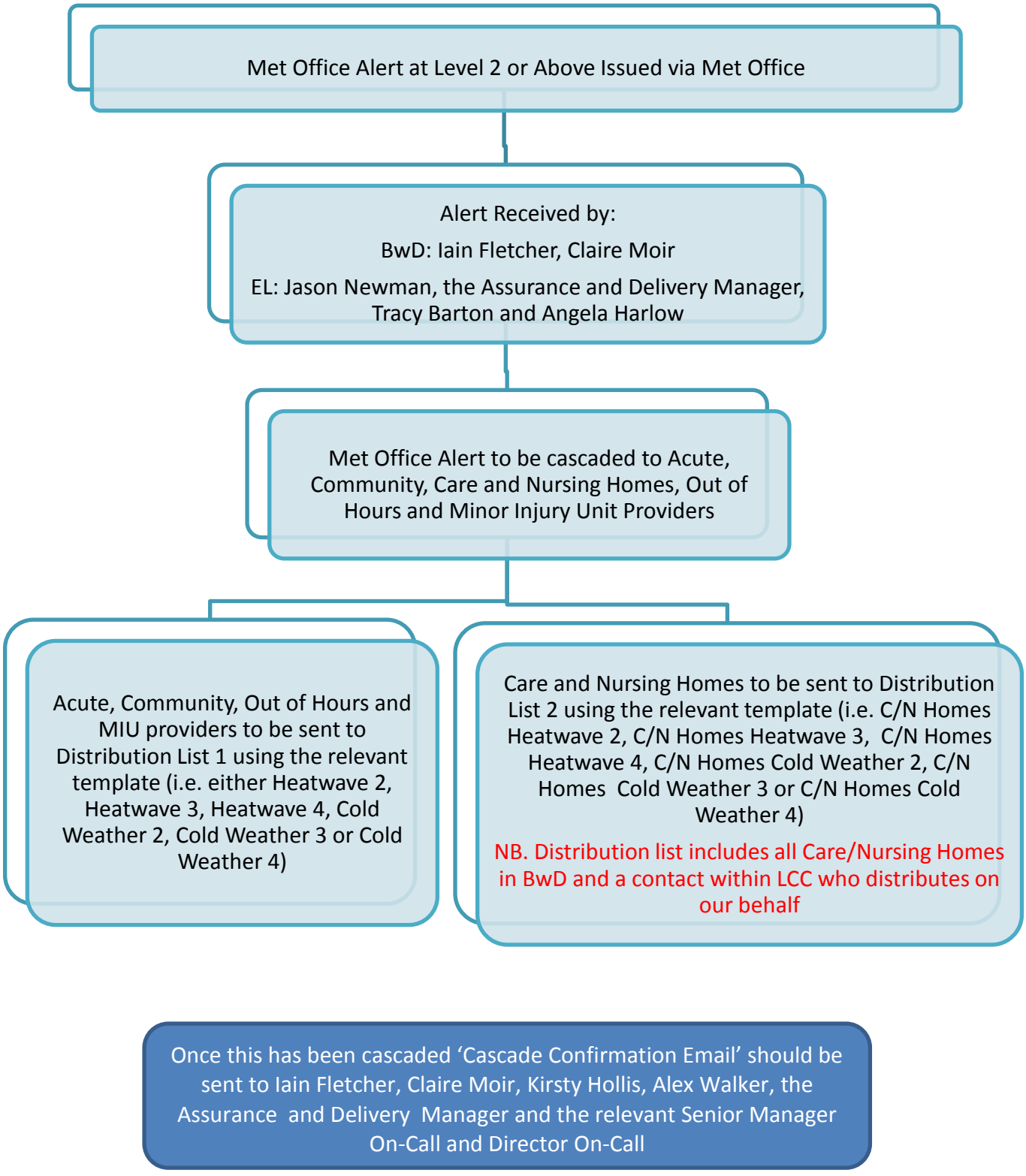
The distribution lists and templates as referred to below are stored within the shared 'Met Office Alerts Cascade' folder which is available within the content locker folders of both CCGs.

The cascade will be managed via the following people in the following order. If the first person is not in the office/available to carry out the cascade then this will fall to the next person and so on. As detailed in the flow chart an email should be sent to all those listed below to provide assurances that this information has been acted upon. The template for this is also in the shared folder.

	Name	Email Address	Contact Telephone Number
1.	Assurance and Delivery Manager (East Lancashire CCG)	liz.ottley@nhs.net	01282 644727
2.	Angela Harlow (East Lancashire CCG)	angelaharlow@nhs.net	01282 644683
3.	Claire Moir (Blackburn with Darwen CCG)	claire.moir1@nhs.net	01254 282046
4.	Tracy Barton (East Lancashire CCG)	tracy.barton4@nhs.net	01282 644798

NB. As previously described the person identified at number 1 has the lead role in cascading any alerts. In the event of any absence, planned or otherwise, action will be taken by the next available person in the list above.

Met Office Alert Cascade Flowchart



Appendix 4 – Information and Signposting

Information / Advice for members of the public

Heatwave:
Looking after yourself and others during hot weather: the latest advice:

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/310608/10091-2902332-TSO-Looking_after_yourself_ACCESSIBLE.pdf

Cold Weather:
Information for over 60s, those on low-incomes and people living with a disability:

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/464858/KWKW_2015.pdf

Top tips for keeping warm and well:

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/465111/Top_tips_to_keep_warm_keep_well.pdf

Advice for Care Homes

Heatwave:
Advice for Care Home Managers and Staff: Supporting Vulnerable People Before and During a Heatwave:

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/310606/10090-2902330-TSO-Heatwave-Care_Home_Managers_ACCESSIBLE.pdf

Advice for Health and Social Care Professionals

Heatwave:
Advice for Health and Social Care Professionals: Supporting Vulnerable People Before and During a Heatwave:

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/310605/10089-2902329-TSO-Heatwave-Advice_for_Health_Professionals_ACCESSIBLE.pdf

Annex A - Flood Plan

1. Introduction

This flood plan has been developed as a procedure for establishing a response to flooding, of any type, in Pennine Lancashire. The main impact of serious flooding would be on both the availability of staff due to difficulties travelling on flooded roads which will disrupt their ability to get to work and also the risk of flooding to Health premises resulting in the retraction or cancellation of services. Also the impact of closed bridges, roads and schools and flooded homes may result in staff shortages, a reduced ambulance service, and a need to cancel non-urgent admissions and outpatient clinics and a range of other community based services and visits would have to be prioritised.

As with other sections of this severe weather plan, this should be read in conjunction with the Pennine Lancashire Major Incident Plan.

2. Aim

2.1 To establish procedures to co-ordinate the CCG's emergency response to flooding.

3. Objectives

The objectives of this plan are to:

- Identify areas at risk from different types of flooding
- Identify critical CCG infrastructure vulnerable to flooding
- Outline activation procedures for the emergency response
- Outline the considerations needed for successful recovery.
- To identify how the CCG will work with Multi-agency partners.

4. Major Flooding Incident

4.1 A major flooding incident is one involving, or threatening to involve, any of the following:

- The flooding of a significant number of properties
- A reduction in the safety/welfare of the public
- Disruption to critical infrastructure.

4.2 In order to mitigate these effects, contingency arrangements must be implemented by the emergency services, local authorities, the Environment Agency and many other organisations including CCGs to manage the actual or potential floods.

4.3 The emergency response encompasses the immediate response to direct effects of flooding (e.g. rescuing individuals and delivering sandbags) and the indirect effects organisation disruption due to staff not being available to work and cancellation of nonessential clinical services. Depending on the nature of flooding, the response effort may last for weeks.

4.4 In contrast, the recovery phase addresses the long-term human, physical, environmental, social and economic consequences of flooding. This can take months or even years to complete.

5. Types of flooding

5.1 Flooding is a natural phenomenon which cannot be entirely prevented. Various mechanisms may cause flooding and a range of factors affect the frequency and severity of a flood event. Human influences, such as inadequate drainage systems and suppression of flood plains, exacerbate the problem.

5.2 Sources and types of flood risk in Pennine Lancashire include:

- Fluvial flooding (river)
- Surface water flooding (excessive run-off)
- Groundwater flooding (high water table)
- Reservoir flooding (dam inundation)
- Sewer flooding (sewerage, rising mains and pumping stations).

5.3 In some areas it is difficult to establish the underlying cause of flooding. Increased infiltration and a rise in the water table may result in failure of drainage systems such as sewers; these cease to function properly when experiencing excess groundwater flow. Failure of the drainage system may cause surface water flooding which can increase the level of watercourses and the likelihood of them breaking their banks.

5.4 Regardless of the type of flooding experienced, the command and control structure used will remain consistent.

Fluvial Flooding

The fluvial river system covers much of Pennine Lancashire. Fluvial flooding may result from overtopping and/or breaching of the flood defences by:

- Heavy rainfall and melting snow causing abnormally high water levels in the rivers and their tributaries
- Dam failure causing abnormally high water levels
- Flash flooding due to intensive localised storms
- Any combination of the above.

5.5 In Pennine Lancashire, fluvial flooding may occur from:

- The River Calder
- The River Brun
- The Leeds and Liverpool Canal
- The River Hyndburn.

5.6 Fluvial flooding can vary considerably in magnitude and duration. Significant damage is caused to both urban and rural areas. River levels may increase a substantial time after rainfall and last for days, weeks or months.

5.7 ‘Rapid response catchments’ are rivers or streams that are expected to react rapidly to extreme rainfall, resulting in flooding that poses a significant risk to life. The force of the water has the ability to destroy buildings and bridges, carry vehicles away and sweep people off their feet.

5.8 This type of flooding is only expected after very extreme weather. Rivers and streams in these catchments have the ability to flood in any given year, but the chance of them flooding in such a severe way is exceptional.

5.9 Flooding from a rapid response catchment is also referred to as 'flash flooding'. This is not to be confused with 'surface water flooding'. Both these types of flooding can be caused by intensive rainfall but flash flooding is a type of fluvial flooding, surface water flooding is not.

Surface water flooding

5.10 Also known as 'pluvial flooding', surface water flooding occurs when the ground and/or drainage systems cannot absorb heavy rainfall. Typically this type of flooding is very localised and has short lead-times, making it difficult to predict.

5.11 Surface water flooding is primarily caused by extreme rainfall. Many factors influence the severity and scale of the problem, including:

- The local topography of an area
- The capacity of drainage systems
- The maintenance of drainage systems
- Blockages in drainage systems
- Excess run-off from land with a steep gradient
- Natural surfaces with low permeability causing excess run-off (e.g. saturation or freezing temperatures)
- Man-made surfaces with low permeability causing excess run-off (e.g. inadequate highways drainage or heavily built-on land).

5.12 Surface water flooding can occur where no watercourse exists.

Groundwater flooding

5.13 Groundwater flooding occurs when a rise in groundwater level is sufficient for the water table to intersect the ground surface and inundate low lying areas.

5.14 This tends to occur after much longer periods of sustained rainfall. Higher rainfall means more water will infiltrate the ground, thus causing the water table to rise above normal levels.

5.15 When properties suffer internally from groundwater flooding there is very little that can be done to prevent the water rising. It also takes longer to dissipate because groundwater moves more slowly than surface water.

5.16 Precautions to be taken against groundwater flooding are limited. Installing pumps can lower the water table but these only have a localised effect and a suitable location must be identified to discharge the water.

Sewer flooding

5.17 Flooding can occur when sewers are overloaded by heavy rainfall. Blockages in the sewer system (e.g. due to a pipe collapse, build-up of fat/debris or failure of a pumping station) can also cause flooding.

5.18 Where flooding occurs from foul sewers the floodwater will be contaminated with sewage. This has health & safety implications both for the public and emergency responders. In some cases, contaminated floodwater can flow back through foul sewers causing flooding inside buildings.

5.19 Backflow through drains is particularly likely where floodwater is prevented from entering the property using temporary barriers and where the flooding depth outside is above the internal level of the drain entry points. Some properties have private sewage systems and flooding of these systems can also create a back-up of sewage into the property.

5.20 Water companies are responsible for the foul sewerage system and the surface water sewerage system if it has been adopted. They do not have responsibility for watercourses or other land drainage systems.

Reservoir / dam inundation

5.21 The Water Act 2003 introduced a new requirement for reservoir operators to produce flood plans for their reservoirs. Detailed inundation mapping is an important process for establishing which reservoirs pose the greatest risk.

Flooding of property

5.22 Flooding can find its way into properties through a variety of routes, including:

- Ingress around closed doorways and airbricks
- Backflow through overloaded sewers, discharging inside the property through low level drain gulleys, toilets, sinks and washing machine/dishwasher outlets.
- Seepage through external walls
- Seepage through the ground and external walls

6. Risk Assessment

6.1 The CCG has a responsibility to carry out its own flood risk assessment taking into account local factors.

6.2 The Lancashire LRF Community risk register identifies Fluvial Flooding as ‘high risk’ and the local CCG Emergency planning risk register identifies flooding as high risk. This is based on the experiences of the floods in Lancashire in 2015.

6.3 At the planning stage in advance of any flooding danger plans should:

- Identify areas which are prone to flooding
- Identify healthcare premises (e.g. clinics, surgeries, nursing homes, hospitals) located in these areas
- Assess the impact of flooding on its ability to maintain routine services.

6.4 When flood alerts are announced by the Environment Agency. The CCG will be informed by NHS England.

7. Activation of CCG Flood Plan

Local Response

The Executive Teams will assess the current situation and any likely impact the flooding could have on local services in Pennine Lancashire and provide information to NHS England (Lancashire and South Cumbria) EPRR lead who will represent the CCG at any Lancashire Strategic Co-ordination Group (SCG) with the CCG likely to be part of the Tactical Co-ordination Group (TCG) where this impacts upon our health economy.

The Executive Management Teams will support local measures where possible to minimise the effect the flooding is having, keep essential health services running by implementing Business Continuity measures where necessary and maintain sufficient cover for emergency care. Assurance of continuation of service will be sought from local providers.

Health advice and information will be provided to the public in accordance with the LRF and NHS England plans.

8. Process for the CCGs when a flood alert is received

- The CCG Accountable Emergency Officer will cascade the Alert to the relevant staff in hours or via the Senior Manager On-Call out of hours.
- Consider whether the CCG Business Continuity Plan needs activating.

9. Impact Flooding will have on the ability to deliver essential and routine services

Local community and independent contractor services may have to be cancelled if the flood disrupts service delivery. This will be managed via both Business Continuity and EPRR reporting processes.

10. Partnership Response (Multi Agency Response)

Multi Agency coordination is crucial to ensure an effective emergency response to severe flooding situations. Liaison with other agencies involved in the emergency response will be maintained by NHS England (Lancashire and South Cumbria) who will represent the CCG at the Strategic Co-ordination Group (Gold) with the CCG likely to be part of the Tactical Co-ordination Group (Silver) where this impacts upon our health economy. This group will be chaired during the response phase by the Police but in the Recovery phase by the Local Authority.

11. Planning for the Risk of Flooding

The CCG needs to have robust Business Continuity arrangements in place to cover issues to be addressed such as:

- Ability of staff to get to work
- Child care arrangements for staff with children of school age

- Other care arrangements e.g. Caring for sick parents/other relatives
- Additional payments for extra travelling, extra time etc. where staff are requested to travel to alternative bases to perform their duties because access to their existing place of work is not possible
- Flexible working arrangements, e.g. working from home where possible, working from alternative CCG base etc.

12. Training and Competencies

Appropriate training will be provided as required for CCG staff.

13. Structured Debrief

A structured debrief will be delivered to all staff who were involved in the response. This will be held at the end of the flooding incident. The multi-agency debrief will be delivered by the Local Authority in the event of the emergency response being a multi-agency effort and subsequent recovery phase. The debrief will be attended by the CCG Assurance and Delivery Manager and Accountable Emergency Officer, if relevant. A full debrief report will be prepared by the Assurance and Delivery Manager following the local debrief if there is an impact on Pennine Lancashire Health Services and submitted to the CCG executive teams.

14. Review and Revisions

As with the remainder of this plan, and other Major Incident / Business Continuity Plans, this plan will be reviewed annually or following receipt of amended national guidance.